

We Claim:

1. A portable electric power supply comprising:
 - a power input having first and second power conductors and a neutral conductor;
 - one or more outlets;
 - a main power contactor adapted to electrically connect the one or more power outlets to the neutral conductor and one or more of the first and second power conductors when the main power contactor is activated;
 - a manually-operated safety switch providing a closed circuit when manually activated and an open circuit when not manually activated;
 - a latching contactor providing a closed circuit when activated and an open circuit when not activated, the latching contactor being connected to provide a parallel electrical circuit with the safety switch;
 - a voltage sensing relay contactor providing a closed circuit when activated and an open circuit when not activated;
 - a voltage sensing relay adapted to measure a first voltage in the first power conductor and a second voltage in the second power conductor and to activate the voltage sensing relay contactor when the first and second voltages exceed a predetermined turn-on value and deactivate the voltage sensing relay contactor when one or both of the first and second voltages falls below a predetermined turn-off value; and
 - a main contactor relay, connected in electrical series with the safety switch and the voltage sensing relay contactor between the neutral conductor and at least one of the first and second power conductors, the main contactor relay being adapted to activate the main power contactor and latching contactor when the voltage sensing relay contactor and one or both of the safety switch and latching contactor are activated, and to deactivate the main power contactor and latching contactor when the voltage sensing relay contactor is deactivated.

2. The portable power supply of claim 1, wherein the power input is connectable to a 50A 250VAC power supply.
3. The portable power supply of claim 1, further comprising one or more breakers associated with the one or more outlets.
4. The portable power supply of claim 1, wherein the outlets comprise one or more 20A 120V outlets, each having an associated GFCI breaker.
5. The portable power supply of claim 1, wherein the outlets comprise one or more 30A 120/240V outlets, each having an associated GFCI breaker.
6. The portable power supply of claim 1, wherein the outlets comprise one or more 20A 120V outlets and one or more 30A 120/240V outlets, each of the outlets having an associated GFCI breaker.
7. The portable power supply of claim 1, wherein the voltage sensing relay is adapted to activate the voltage sensing relay contactor when the sum of the first and second voltages exceeds a predetermined turn-on value and deactivate the voltage sensing relay contactor when the sum of the first and second voltages falls below a predetermined turn-off value.
8. The portable power supply of claim 7, wherein the power input has a rated voltage value, and the turn-on value is about 70% to about 100% of the rated voltage value.
9. The portable power supply of claim 7, wherein the turn-on value is adjustable.
10. The portable power supply of claim 7, wherein the turn-off value is not equal to the turn-on value.
11. The portable power supply of claim 10, wherein the turn-off value is up to about 20% lower than the turn-on value.
12. The portable power supply of claim 10, wherein the turn-on value and turn-off value are adjustable.
13. The portable power supply of claim 1, further comprising a light adapted to be illuminated when the main power contactor is activated.

14. The portable power supply of claim 1, further comprising one or more fuses protecting one or more of the safety switch, latching contactor, voltage sensing relay contactor, voltage sensing relay, and main contactor relay.